Docket No.: 1349.1028

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Soon-kyo HONG et al.

Serial No. 09/955,061 Group Art Unit: 3729

Confirmation No. 8477

Filed: September 19, 2001 Examiner: Kim, Paul D.

For: A DISC BALANCING DEVICE

SUPPLEMENTAL APPEAL BRIEF UNDER 37 C.F.R §§ 41.31 ET SEQ. FOLLOWING THE NOTICE OF NON COMPLIANT APPEAL BRIEF, MAILED SEPTEMBER 7, 2005

Mail Stop Appeal Brief-Patents
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the Appellant's earlier filed Notice of Appeal on February 18, 2005, Appellant hereby appeals to the Board of Patent Appeals and Interferences from the final rejection mailed October 26, 2004.

Appellant submits this Appeal Brief in response to the Notification of Non-Compliant Appeal Brief mailed September 7, 2005, as required by 37 C.F.R. §41.37.

I. REAL PARTY IN INTEREST

Pursuant to 37 C.F.R. §41.37(c)(1)(i), due to the assignment executed on September 10, 2001 by the inventors Soon-kyo HONG, Chul-woo LEE, Seung-tae JUNG and Sung-hoon CHOA, recorded in the United States Patent and Trademark Office at Reel 012179, Frame 0475, the real party in interest is as follows:

Samsung Electronics Co., Ltd.
416, Maetan-dong, Paldal-gu,
Suwon-city, Kyungki-do
Republic of Korea

II. RELATED APPEALS AND INTERFERENCES

Pursuant to 37 C.F.R. §41.37(c)(1)(ii), although the real party in interest has other appeals and interferences, none of the other pending appeals and interferences is believed to directly affect or be directly affected by, or have any bearing upon the decision of the Board of Patent Appeals and Interferences in this appeal.

III. STATUS OF CLAIMS

Pursuant to 37 C.F.R. §41.37(c)(1)(iii), claims 1 through 4 and 14-16 are pending and under consideration in this application at the filing of this Appeal Brief. Claims 15 and 16 are indicated as containing allowable subject matter, and claims 1 through 4 and 14 stand finally rejected. Non-elected claims 5-13 have been cancelled. Claims 1 and 14 are independent claims, and claims 2 through 4, and 15 through 16 are dependent claims. Claims 1-4 and 14 are being appealed.

Claims 1 through 16 were originally filed in the application with claims 5-13 later being withdrawn as drawn to a non-elected invention.

In the Amendment filed April 19, 2004 claims 1, 3 and 14-15 were amended. In the Response and Request for Reconsideration filed on September 15, 2004, no claims were amended.

In the Response and Request for Reconsideration filed under 37 C.F.R. §1.116 on January 21, 2005, the non-elected and withdrawn claims 5 through 13 were cancelled without prejudice or disclaimer to the subject matter recited therein.

Thus, in view of the final Office Action mailed October 26, 2004, claims 1 through 4 and 14 stand finally rejected. This Appeal Brief is an appeal of the finally rejected claims 1 through 4, and 14.

IV. STATUS OF AMENDMENTS

Pursuant to 37 C.F.R. §41.37(c)(1)(iv), all amendments filed have been entered.

The last response filed on January 21, 2005 under 37 C.F.R. §1.116 in response to the final Office Action of October 26, 2004 in which the non-elected withdrawn claims 5-13 were cancelled, was entered by Examiner Kim according to a Supplemental Advisory Action mailed on June 30, 2005. Accordingly, non-elected claims 5-13 have been cancelled and claims 1-4 and 14-16 remain pending.

Pursuant to 37 C.F.R. §41.37(c)(1)(viii), a copy of the claims involved in the appeal is included in their present condition in the Claims Appendix.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Pursuant to 37 C.F.R. §41.37(c)(1)(v), the present invention is directed to a disc balancing apparatus which balances an eccentric mass of an optical disc.

1. Independent Claim 1 and dependent claims 2-4 (not separately argued).

Claim 1 recites "[a] disc balancing device which balances a disc comprising: a disc assembly having a driving source, wherein the disc is rotatably disposed at the driving source; a displacement measurement unit measuring vibration in the rotation of the disc assembly; a phase angle measurement unit measuring a phase angle from a reference point of the disc assembly in the rotation of the disc assembly; an operation/control unit calculating an eccentric mass and an eccentric position of the disc assembly, by using the biased vibration measured in the displacement measurement unit and the phase angle measured in the phase angle measurement unit; and a laser cutter moving to track and to laser-cut a side portion of the disc corresponding to the eccentric position, while the disc is not rotating, according to the eccentric mass information from the operation/control unit, wherein the eccentric mass of the disc assembly is balanced to reduce vibration in the rotation thereof." Claims 2-4 are dependent claims that are not argued separately, and therefore pursuant to 37 CFR §41.37(c)(1)(v) will not be described in detail.

As illustrated in FIG. 3, the disc balancing device includes a disc assembly 10, a displacement measurement unit 20 which measures vibration in the disc assembly 10 during rotation, a phase angle measurement unit 21, an operation/control unit 23, and a laser cutter 25. (See paragraph 0018, page 4).

The disc assembly 10 includes a driving source such as a spindle motor 12, and a disc 14 connected to a rotation unit 13 of the spindle motor 12. The rotation unit 13 incorporates a rotation shaft 12a of the spindle motor 12 and a hub connected to the rotation shaft 12a. The disc 14 may be a single layer or may be formed in a multi-layer structure. Spacers 15 are provided between the discs 14 when the multi-layer structure is used. The discs 14 are fixed to the rotation unit 13 by a clamp 16 disposed at the rotation unit 13. Accordingly, the clamp 16 is rotated with the rotation unit 13 and the discs 14. As illustrated in FIG. 4, a reference point P is marked on the clamp 16 to allow a phase angle to be determined by the phase angle

measurement unit 21. (See paragraphs 0020-0021, page 5).

The displacement measurement unit 20 measures vibration caused by the eccentric mass of the disc 14 biasing a portion of the disc 14 during rotation. More particularly, the displacement measurement unit 20 measures displacement of the rotated disc assembly 10. The displacement measurement unit 20 transmits the vibration information to an operation/control unit 23. (See paragraph 0020, page 5).

As shown in FIGs. 3 and 4, the phase angle measurement unit 21 simultaneously measures a phase angle of the clamp 16, from the reference point P, when the disc 14 is rotating on the production line of the disc assembly 10. As depicted in FIG. 4, the phase angle measurement unit 21 is a photo sensor measuring the phase angle by irradiating light toward the reference point P and receiving a reflected light from the clamp 16. The phase angle measurement unit 21 transmits the phase angle information to the operation/control unit 23. (See paragraphs 0019-0021, pages 4-5).

The operation/control unit 23 may be a computer which can operate data and control a mechanical device such as a robot. The operation/control unit 23 calculates the eccentric mass and position of the disc assembly 10 by using the biased vibration information received from the displacement measurement unit 20 and the phase angle information received from the phase angle measurement unit 21. The eccentric mass and position information of the disc assembly 10 calculated in the operation/control unit 23 are used as reference data for controlling the laser cutter 25. (See paragraphs 0022-0023, pages 5-6).

The laser cutter 25 tracks the side portion of the disc 14 corresponding to the eccentric mass position calculated in the operation/control unit 23, and laser-cuts the side portion of the disc 14 corresponding to the calculated eccentric mass. The laser cutter 25 may be installed on the arms of an industrial robot (not shown) controlled by the operation/control unit 23. After determining the eccentric mass position, the operation/control unit 23 stops rotation of the disc 14 and then controls the laser cutter 25 to remove the eccentric mass. (See paragraphs 0023-0026, pages 6-7).

2. Independent Claim 14.

Claim 14 recites, "[a] disc balancing device comprising: a disc assembly having a driving source and at least one disc rotatably disposed at the driving source; a measurement unit measuring an eccentric portion of the at least one disc; and a laser cutter moving to cut a portion of the disc corresponding to the measured eccentric portion, while the disc is not rotating."

As illustrated in FIG. 3, the disc balancing device includes a disc assembly 10, a measurement unit including a displacement measurement unit 20 which measures vibration in the disc assembly 10 during rotation and a phase angle measurement unit 21, and a laser cutter 25. (See paragraph 0018, page 4).

The disc assembly 10 includes a driving source such as a spindle motor 12, and at least one disc 14 connected to a rotation unit 13 of the spindle motor 12. The rotation unit 13 incorporates a rotation shaft 12a of the spindle motor 12 and a hub connected to the rotation shaft 12a. The disc 14 may be a single layer or may be formed in a multi-layer structure. Spacers 15 are provided between the discs 14 when the multi-layer structure is used. The discs 14 are fixed to the rotation unit 13 by a clamp 16 disposed at the rotation unit 13. Accordingly, the clamp 16 is rotated with the rotation unit 13 and the discs 14. As illustrated in FIG. 4, a reference point P is marked on the clamp 16 to allow a phase angle to be determined. (See paragraphs 0020-0021, page 5).

The displacement measurement unit 20 measures vibration caused by the eccentric mass of the discs 14 biasing a portion of the discs 14 during rotation. More particularly, the displacement measurement unit 20 measures displacement of the rotated disc assembly 10. The displacement measurement unit 20 transmits the vibration information to an operation/control unit 23. (See paragraph 0020, page 5).

As shown in FIGs. 3 and 4, the phase angle measurement unit 21 measures a phase angle of the clamp 16, from the reference point P, when the discs 14 are rotating on the production line of the disc assembly 10 simultaneously with the displacement measurement unit 20 measuring the displacement. As depicted in FIG. 4, the phase angle measurement unit 21 is a photo sensor measuring the phase angle by irradiating light toward the reference point P and receiving a reflected light from the clamp 16. The phase angle measurement unit 21 transmits the phase angle information to the operation/control unit 23. (See paragraphs 0019-0021, pages 4-5). Further the measurement unit recited in claim 14 comprises the displacement measurement unit 20 and the phase angle measurement unit 21, which are positioned adjacent to each other so that the vibration and the phase angle can be measured at the same time. (See paragraph 0021, page 5). The measurements are transmitted to the operation/control unit 23.

The operation/control unit 23 may be a computer which can operate data and control a mechanical device such as a robot. The operation/control unit 23 calculates the eccentric mass and position of the disc assembly 10 by using the biased vibration information from the

displacement measurement unit 20 and the phase angle information from the phase angle measurement unit 21. The eccentric mass and position information of the disc assembly 10 calculated in the operation/control unit 23 are used as reference data for controlling the movement of the laser cutter 25 to the measured eccentric portion. (See paragraphs 0022-0023, pages 5-6).

The laser cutter 25 tracks the side portion of the disc 14 corresponding to the eccentric mass position calculated in the operation/control unit 23, and laser-cuts the side portion of the disc 14 corresponding to the calculated eccentric mass. The laser cutter 25 may be installed on the arms of an industrial robot (not shown) controlled by the operation/control unit 23. After determining the eccentric mass position, the operation/control unit 23 stops rotation of the discs 14 and then controls the laser cutter 25 to remove the eccentric mass. (See paragraphs 0023-0026, pages 6-7).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claim 14 stands rejected under 35 USC §102(b) as being anticipated by Duston et al., U.S. Patent No. 3,538,298.

2. Claims 1 and 4 stand rejected under 35 USC §103(a) as being obvious over Duston et al., U.S. Patent No. 3,538,298, in view of Scuricini, U.S. Patent No. 4,096,988.

VII. ARGUMENT

1. Claim 14 is not anticipated by Duston et al. (U.S, Patent No. 3,538,298).

Claim 14 recites, inter alia, "at least one disc rotatably disposed at the driving source; a measurement unit measuring an eccentric portion of the at least one disc; and a laser cutter moving to cut a portion of the disc corresponding to the measured eccentric portion, while the disc is not rotating."

In order to reject a claim under 35 U.S.C. §102, a reference must be provided which discloses each element of the claim in the manner recited in the claim. In interpreting the reference, the Examiner is to broadly interpret the claim, but must do so within the bounds of reason. In re Morris, USPQ2d 1023, 1027-28 (Fed. Cir. 1997), MPEP 2131 and 2111. Thus, claim limitations are to be interpreted in light of its broadest reasonable interpretation. In re Prater, 162 USPQ 541, 550-51 (CCPA 1969), cited with approval, In re Morris, 44 USPQ2d 1023, 1028 (Fed. Cir. 1997). Further, the claims should be interpreted in light of their plain meaning as understood by one of ordinary skill in the art. In re Zletz, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989),citing, In re Prater. However, the broadest reasonable interpretation must also conform to the broadest reasonable interpretation afforded by one of ordinary skill in the art *when read in light of the specification*. In re Prater, 162 USPQ 541, 550-51, In re Morris, 44 USPQ2d at 1027, MPEP 2111.01 (7th Ed., rev. 1) (Feb. 2000). Thus, while the Examiner is to avoid reading limitations from the specification into the claims, the Examiner should not interpret claim limitations so broadly as to contradict or otherwise render a limitation meaningless as would be understood by those of ordinary skill in the art. See, In re Cortright, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999), In re Zletz, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), MPEP 2111.01.

A. Duston et al. does not disclose a disc or a disc assembly as recited in claim 14.

A disc stores data and is part of a disc drive such as a hard disc drive. (See paragraphs 0001 and 0002, page 1 of the originally filed specification). As is commonly understood to those skilled in the art a "disc" is a round flat plate coated with a magnetic substance on which data for a computer is stored.

Duston et al. does not disclose a disc, rather it discloses a cylindrical object 4. (Duston

et al. FIG. 1A). As described by Duston et al. the rotating unit has two ends. (Duston et al. col. 4, lines 3-12). Further, the balancer disclosed in Duston et al. focuses the laser on the rotating object between a pair of annular grooves 6 and 17. Again, this clearly points out that the rotating unit of Duston et al. is not a flat disc, but rather a large cylindrical body. A cylinder is not the same functionally or structurally as a disc.

The Examiner has equated the motor 9 as disclosing a disc assembly having a driving source, and the rotor 5 as disclosing at least one disc. (Action mailed October 26, 2004, page 2, item 3). However, as discussed above, Duston et al. does not disclose a disc, it discloses a rotor 5. (col. 3, line 59). Further, the motor 9 of Duston et al. does not disclose a disc assembly it simply discloses a drive source, which is only one part of the disc assembly.

Because no disc is disclosed there can be no disclosure of a disc assembly.

B. Duston et al. does not disclose a laser cutter cutting the disc while the disc is not moving as recited in claim 14.

Duston et al. discloses a method of balancing rotating objects. The discussed improvement of Duston et al. is that a laser may be used rather than the time consuming and expensive mechanical techniques. (Duston et al. Col. 1, lines 24-29 and 63-65). An important distinction in Duston et al. is that the previous *mechanical techniques* involved stopping the rotary motion of the object and using drills to remove material from the heavy side (i.e., "a region running longitudinally along the surface of the rotating unit," Duston et al. col. 1, lines 47-48) and then rotating the object again to check the effectiveness of the material removal. (Duston et al. col. 1 line 30- col. 1 line 65).

In contrast, every disclosure in Duston et al. of a laser removal technique involves a rotating object. (Col. 1, lines 69-72, col. 3. lines 1-4). Indeed, the laser removal technique of Duston et al. requires that the object be rotating in order for the removal process to work correctly. (See col. 3, lines 5-44). As clearly stated "FIG. 2 illustrates an apparatus arrangement which may be used to remove material from a **rotating** object." (Col. 3, lines 55-56) (Emphasis added). Combining selected inapposite portions of the disclosed mechanical drilling technique in Duston et al. and the laser cutting technique (i.e., the invention of Duston et al. that teaches away from the mechanical technique) is not proper and contrary to a logical combination. These are separate devices and there is absolutely no teaching to make such a combination of disparate elements from the old and the new. Indeed, because the laser cutting invention of

Duston et al. is described as overcoming problems with the mechanical technique, the reference teaches away from any such combination. There is absolutely no support or teaching for the combination of the background of Duston et al. and the invention of Duston et al. that the Examiner is making.

Duston et al. also fails to disclose the claimed laser cutter moving to cut a portion of a disk corresponding to the measured eccentric portion. The cutting of an eccentric portion of a disk is different from cutting an eccentric portion of a cylinder. The invention of Duston et al. is primarily drawn to adding an additional groove 6 in a cylinder 4 such that any laser etching of the cylinder 4 will only etch a plateau portion circumferentially arranged around the cylinder 4 and any overflow of etching material will fall off because of the etching area being a plateau and the rotation of the cylinder 4. Regardless, the etching is performed in particular heavy areas around the cylinder according to the detected cylinder's eccentricity. Thus, any laser melting in Duston et al. is for compensating for cylindrical eccentricity, which is not the same as eccentricity of a disc as recited in the claims of the present invention and described in the originally filed specification.

C. The Examiner is mischaracterizing the teachings of Duston et al.

The Examiner is mischaracterizing the invention of Duston et al. as disclosing a disc when this is clearly not the case. Further, the Examiner mischaracterizes the disclosure of Duston et al. in alleging that a laser cutter while the disc is not rotating is disclosed at col. 1 lines 49-62. (Office Action mailed October 26, 2004, page 2). As discussed above, the removal of material at the location specified by the Examiner refers to a mechanical technique involving drills and not the laser removal process described as the invention of Duston et al. A drill removal technique does not teach a laser removal process.

Thus, it is respectfully submitted that Duston et al. does not disclose "at least one disc rotatably disposed at the driving source; a measurement unit measuring an eccentric portion of the at least one disc; and a laser cutter moving to cut a portion of the disc corresponding to the measured eccentric portion, while the disc is not rotating" as recited in independent claim 14.

2. Claim 1, and dependent claims 2-4, are patentably distinguishable and not obvious over Duston et al. (U.S, Patent No. 3,538,298) in view of Scuricini (U.S. Patent No. 4,096,988).

Claim 1 recites, inter alia, "a displacement measurement unit measuring vibration in the rotation of the disc assembly; a phase angle measurement unit measuring a phase angle from a reference point of the disc assembly in the rotation of the disc assembly; an operation/control unit calculating an eccentric mass and an eccentric position of the disc assembly, by using the biased vibration measured in the displacement measurement unit and the phase angle measured in the phase angle measurement unit; and a laser cutter moving to track and to laser-cut a side portion of the disc corresponding to the eccentric position, while the disc is not rotating, according to the eccentric mass information from the operation/control unit, wherein the eccentric mass of the disc assembly is balanced to reduce vibration in the rotation thereof."

In general, in order to reject a claim under 35 U.S.C. §103, a reference or combination of references must be provided which discloses each element of the claim in the manner recited in the claim. In interpreting the reference, the Examiner is to broadly interpret the claim, but must do so within the bounds of reason. In re Morris, USPQ2d 1023, 1027-28 (Fed. Cir. 1997), MPEP 2131 and 2111. Thus, while the Examiner is to avoid reading limitations from the specification into the claims, the Examiner should not interpret claim limitations so broadly as to contradict or otherwise render a limitation meaningless as would be understood by those of ordinary skill in the art. See, In re Cortright, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999), In re Zletz, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), MPEP 2111.01.

A. Duston et al. alone or in combination with Scuricini does not disclose a disc or a disc assembly as recited in claim 1.

Duston et al. does not disclose a disc, does not disclose cutting a disc while the disc is not moving and does not disclose a disc assembly. Further, as admitted in the Office Action mailed October 26, 2004, Duston et al. does not disclose an operation/control unit as recited in claim 1. For reasons similar to those mentioned above in the arguments in support of patentability of claim 14, Duston et al. does not disclose all the limitations of independent claim 1.

Scuricini does not cure the defects of Duston et al. Scuricini discloses an apparatus for balancing a cylindrical rotor 1 with an attached annular belt 14 for a centrifuge. (Col. 1, lines 6-

15, FIG. 2). Similarly to Duston et al., there is no way to characterize the rotor 1 and belt 14 of Scuricini as disclosing a disc as recited in the claims of the instant application without rendering the limitation meaningless. In Scuricini, the belt 14 is fixed to the cylindrical body 1. (Col. 5, lines 30-36). Scuricini discloses that a laser 12 is used to melt or sublimate material from the belt 14 **during rotation** of the belt and cylindrical rotor 1. (Col. 5, lines 39-54) (Emphasis added). Scuricini further discloses that the balancing of the rotor 1 in the case of the centrifuge requires that the center of gravity must coincide with the geometrical center as much as possible. Scuricini discloses that "the most rapid and exact way and **without having to stop the rotor**" to remove mass eccentricity and dynamically balance the cylindrical rotor 1 of the centrifuge is according to the apparatus disclosed. (Col. 6, lines 36-40) (Emphasis added). However, the belt 14 and rotor 1 of Scuricini does not disclose a disc assembly as recited in claim 1. Claims should not be interpreted so broadly as to render a limitation meaningless. The scope of the references is not analogous art because the subject matter disclosed is not of the same character. Balancing a thin disc and balancing a cylinder have different issues one of which is the size and precision necessary to balance a disc.

Combining Duston et al. and Scuricini discloses an apparatus for balancing cylindrical rotating bodies while the rotating body is moving. The combination does not disclose a disc, a disc assembly or cutting a side portion of the disc as recited in claim 1.

Claims 2-4 are deemed patentable due at least to their dependence from claim 1 and stand as a group with claim 1.

Thus, it is respectfully submitted that Duston et al. in view of Scuricini does not disclose "a displacement measurement unit measuring vibration in the rotation of the disc assembly; a phase angle measurement unit measuring a phase angle from a reference point of the disc assembly in the rotation of the disc assembly; an operation/control unit calculating an eccentric mass and an eccentric position of the disc assembly, by using the biased vibration measured in the displacement measurement unit and the phase angle measured in the phase angle measurement unit; and a laser cutter moving to track and to laser-cut a side portion of the disc corresponding to the eccentric position, while the disc is not rotating, according to the eccentric mass information from the operation/control unit, wherein the eccentric mass of the disc assembly is balanced to reduce vibration in the rotation thereof," as recited in independent claim 1.

IX. CONCLUSION

In view of the law and facts, the Appellants respectfully submit that the Examiner has failed to cite references that support an anticipation rejection and an obviousness rejection of the claims and has failed to rebut the arguments in the response filed on January 21, 2005.

The Appellants respectfully submit that, even given the broadest reasonable interpretation, the cylindrical balancer of Duston et al., either alone or in any proper combination with Scuricini, does not disclose the invention as recited in claims 1, 2-4 and 14.

Thus, Appellants respectfully submit that the Examiner's findings of unpatentability with respect to claims 1, 2-4 and 14 should be reversed.

The Commissioner is hereby authorized to charge any additional fees required in connection with the filing of the Appeal Brief to our Deposit Account No. 503333.

Respectfully submitted,

Stein, McEwen & Bui, LLP

Date: 9/27/2005

By: _____
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CLAIMS APPENDIX:

1. (PREVIOUSLY PRESENTED) A disc balancing device which balances a disc comprising:

a disc assembly having a driving source, wherein the disc is rotatably disposed at the driving source;

a displacement measurement unit measuring vibration in the rotation of the disc assembly;

a phase angle measurement unit measuring a phase angle from a reference point of the disc assembly in the rotation of the disc assembly;

an operation/control unit calculating an eccentric mass and an eccentric position of the disc assembly, by using the biased vibration measured in the displacement measurement unit and the phase angle measured in the phase angle measurement unit; and

a laser cutter moving to track and to laser-cut a side portion of the disc corresponding to the eccentric position, while the disc is not rotating, according to the eccentric mass information from the operation/control unit, wherein the eccentric mass of the disc assembly is balanced to reduce vibration in the rotation thereof.

2. (ORIGINAL) The device according to claim 1, further comprising a dust inhaler inhaling dust generated when the side portion of the disc is cut by the laser cutter.

3. (PREVIOUSLY PRESENTED) The device according to claim 2, further comprising a robot unit, wherein the dust inhaler and the laser cutter are moved by the robot unit controlled by the operation/control unit, to track the eccentric position.

4. (ORIGINAL) The device according to claim 1, wherein the phase angle measurement unit is a photo sensor measuring the phase angle by irradiating light to the reference point and receiving a reflection light from the disc assembly.

14. (PREVIOUSLY PRESENTED) A disc balancing device comprising:

a disc assembly having a driving source and at least one disc rotatably disposed at the driving source;

a measurement unit measuring an eccentric portion of the at least one disc; and

a laser cutter moving to cut a portion of the disc corresponding to the measured eccentric portion, while the disc is not rotating.

EVIDENCE APPENDIX:

No evidence has been submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132. Thus, no evidence is hereby included in the evidence appendix.

RELATED PROCEEDINGS APPENDIX:

As stated above in the Related Appeals and Interferences section, there are no related proceedings.

Resp Non-Comp. AB: 10/7/05
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,061	09/19/2001	Soon-kyo Hong	1349.1028	8477

49455 7590 09/07/2005

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EXAMINER	
ART UNIT	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Notification of Non-Compliant Appeal Brief (37 CFR 41.37)	Application No.	Applicant(s)	
	09/955,061	HONG ET AL.	
	Examiner	Art Unit	
	Paul D. Kim	3729	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The Appeal Brief filed on *06 July 2005* is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file anamended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1. ☒ The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.

2. ☐ The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).

3. ☐ At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).

4. ☒ (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).

5. ☐ The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi))

6. ☒ The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).

7. ☐ The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).

8. ☒ The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).

9. ☒ The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).

10. ☐ Other (including any explanation in support of the above items):

Re. Item 1: The content and format of the appeal brief has been changed and required to be corrected.
Re. Item 4: The "Summary of invention" has been changed to "Summary of claimed subject matter" including a concise explanation of the subject matter defined in each of the independent claims involves in the appeal and refer to the specification by page and line number and to the drawing if any. The brief must identify for each independent claim involved in the appeal and for each dedpendent claim argued seperatly.
In addition, the "Issues for reivew" and "Grouping of claims" have been changed to "Grounds of rejection to be reviewed on appeal".
Re. Item 6: The "Argument" section has been revised and required to be updated.
Re. Item 8: The "Evidence appendix" is requried.
Re. Item 9: The "Related proceedings appendix" is required.

David P. Bryant
Primary Examiner